INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/030699

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, BIOSIS, PAJ, WPI Data, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	THORGEIRSSON T E ET AL: "Markers associated with the inversion polymorphism on chromosome 8p23 are associated with Panic Disorders." AMERICAN JOURNAL OF HUMAN GENETICS, vol. 73, no. 5, November 2003 (2003-11), page 514, XP002343054 53RD ANNUAL MEETING OF THE AMERICAN SOCIETY OF HUMAN GENETICS; LOS ANGELES, CA, USA; NOVEMBER 04-08, 2003 ISSN: 0002-9297 abstract	1-63
E	WO 2005/002419 A (TRUSTEES OF BOSTON UNIVERSITY; MILUNSKY, JEFF, M) 13 January 2005 (2005-01-13) the whole document	1,14,41

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication data of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
2 September 2005	20. 10. 2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Bellmann, A

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/030699

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

   a. type of material

   [X] a sequence listing

   [ ] table(s) related to the sequence listing

   b. format of material

   [ ] in written format

   [X] in computer readable form

   c. time of filing/furnishing

   [ ] contained in the international application as filed

   [ ] filed together with the international application in computer readable form

   [X] furnished subsequently to this Authority for the purpose of search

2. [X] In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/030699

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: -

The numbering of the claims does not comply with Rule 6.1(e) PCT in that some claims are numbered with non-arabic numerals, i.e. claims 13b,26b,34b and 43b and some claim numbers are duplicated, i.e. claims with the number 42 to 45 occur twice (Rule 6.1(b) PCT).
Claims 13b, 26b,34b and 43b were renumbered as claims 56, 57, 58 and 59 respectively and the later claims 42 to 45 were renumbered as claims 60 to 63.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/030699

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LUI ET AL.: "Directly Defining the Gene(s) for Genomic Disease:Use of Sequence-Integrated BAC Recource to analyse a subtle deletion/inversion involving chromosome 8p22-23.3" AMERICAN JOURNAL OF HUMAN GENETICS, AMERICAN SOCIETY OF HUMAN GENETICS, CHICAGO, IL, US, vol. 67, no. 4, SUPPL 2, October 2000 (2000-10), page 157, XP009047806 ISSN: 0002-9297 the whole document	14-26,41
X	SUGAWARA H ET AL: "Complex low-copy repeats associated with a common polymorphic inversion at human chromosome 8p23" GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 82, no. 2, August 2003 (2003-08), pages 238-244, XP004434191 ISSN: 0888-7543 the whole document	14-26,41
X	OPHOFF ROEL A ET AL: "Genomewide linkage disequilibrium mapping of severe bipolar disorder in a population isolate." AMERICAN JOURNAL OF HUMAN GENETICS. SEP 2002, vol. 71, no. 3, September 2002 (2002-09), pages 565-574, XP002343055 ISSN: 0002-9297 page 569; table 1	14-26
X	PULVER A E: "SEARCH FOR SCHZOPHRENIA SUSCEPTIBILITY GENES" BIOLOGICAL PSYCHIATRY, ELSEVIER SCIENCE, NEW YORK, NY, US, vol. 47, 1 February 2000 (2000-02-01), pages 221-230, XP000944356 ISSN: 0006-3223 page 225; table 1	14-26
A	HANS C ET AL: "AN UNUSUAL DE NOVO INVERSION AND DUPLICATION OF CHROMOSOME 8; 46, XY, REC(8) DUP(P11 P22), INV (8)(P23 Q22) A RELATIONSHIP WITH SAN LUIS VALLEY SYNDROME?" EUROPEAN JOURNAL OF HUMAN GENETICS, KARGER, BASEL, CH, vol. 9, no. SUPPL 1, 19 May 2001 (2001-05-19), page P0266, XP008051011 ISSN: 1018-4813 abstract	

-/--

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/030699

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FELDMAN G L ET AL: "INVERTED DUPLICATION OF 8P: TEN NEW PATIENTS AND REVIEW OF THE LITERATURE" AMERICAN JOURNAL OF MEDICAL GENETICS, WILEY, NEW YORK,NY, US, vol. 47, no. 4, 1993, pages 482-486, XP008050996 ISSN: 0148-7299 the whole document	
A	MOEDJONO S J ET AL: "FAMILIAL PERICENTRIC INVERSION OF CHROMOSOME 8: IS BREAKPOINT P22Q23 IMPORTANT IN THE FORMATION OF UNBALANCED RECOMBINANTS?" ANNALES DE GENETIQUE, EXPANSION SCIENTIFIQUE FRANCAISE, PARIS, FR, vol. 23, no. 4, 1980, pages 235-237, XP008051008 ISSN: 0003-3995 the whole document	
A	FAN Y S ET AL: "Molecular cytogenetic characterization of a derivative chromosome 8 with an inverted duplication of 8p21.3-->p23.3 and a rearranged duplication of 8q24.13-->qter." AMERICAN JOURNAL OF MEDICAL GENETICS. 15 AUG 2001, vol. 102, no. 3, 15 August 2001 (2001-08-15), pages 266-271, XP002343056 ISSN: 0148-7299 the whole document	
A	GRAW S L ET AL: "Cloning, sequencing, and analysis of inv8 chromosome breakpoints associated with recombinant 8 syndrome." AMERICAN JOURNAL OF HUMAN GENETICS. MAR 2000, vol. 66, no. 3, March 2000 (2000-03), pages 1138-1144, XP002343057 ISSN: 0002-9297 the whole document	
A	MACINTYRE D J ET AL: "Chromosomal abnormalities and mental illness." MOLECULAR PSYCHIATRY. MAR 2003, vol. 8, no. 3, March 2003 (2003-03), pages 275-287, XP002343058 ISSN: 1359-4184 abstract; table 1	
A	WO 00/50639 A (VARIAGENICS, INC; STANTON, VINCENT, JR) 31 August 2000 (2000-08-31) claim 108	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/030699

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005002419 A	13-01-2005	NONE	
WO 0050639 A	31-08-2000	AU 3997300 A	14-09-2000
		CA 2362533 A1	31-08-2000
		EP 1224322 A2	24-07-2002
		JP 2003516111 T	13-05-2003